UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,370	12/03/2003	Glen Darling	50325-0841	6391

29989 7590 03/20/2008

HICKMAN PALERMO TRUONG & BECKER, LLP
2055 GATEWAY PLACE
SUITE 550
SAN JOSE, CA 95110

EXAMINER	
ZHEN, LI B	

ART UNIT	PAPER NUMBER
2194	

MAIL DATE	DELIVERY MODE
03/20/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/728,370	DARLING ET AL.	
	Examiner	Art Unit	
	Li B. Zhen	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *32-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *32-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/5/2007;9/20/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 32 – 62 are pending in the application.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Specification

3. The applicant recites a co-pending application by its title (p.1, lines 4 – 7). Please update the information by including U.S. application serial numbers or patent numbers.

Claim Interpretation

4. Claims 32, 37, 44, 51 and 58 recite the limitation "first module can provide and use at least one API, by...". The word "can" suggests the intended use of the first module and the claims do not positively recite that the first module provides or uses the API. If the first module is not required to provide or use the API, the steps that the first module performs to provide or use the API is not required to be part of the claim and those steps are not given any patentable weight. If applicant intends the steps performed by the first module to be given patentable weight, it is requested that applicant amend the claims to positively recite those steps.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 32 – 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0081184 to Deedwaniya et al. [hereinafter Deedwaniya] in view of U.S. Patent Application Publication No. 2003/0212990 to Brodkorb et al. [hereinafter Brodkorb].**

8. As to claim 37, Deedwaniya teaches the invention substantially as claimed including a method of a build environment for packaged software delivery in a distributed network of nodes [p. 2, paragraph 0016], the method comprising the computer-implemented steps of:

the build environment compiling source code files into one or more executable file modules [application is compiled and link-edited; p. 2, paragraph 0026];

wherein each of the one or more modules contains an image for a process or a dynamically linked library (DLL) [when the application is run, the DLL (e.g., DLLA) will be located and loaded; p. 2, paragraph 0026];

the build environment creating a software package that comprises the one or more modules [functions foo( ) and bar( ), which are marked as exported to be packaged into a DLL executable 54; p. 2, paragraph 0017], wherein the software package is delivered to the nodes in the distributed network [p. 5, paragraph 0079];

the build environment creating metadata for a first module, of the one or more modules, that includes any module information such as the first module's: binary signature, name, directory path, and characteristics [compiler 32 provides the capability to compile programs to produce DLL object files with attributes as a logical extension to the function name; p. 3, paragraph 0034];

the build environment inserting the metadata of the first module into the software package ["decorate" the DLL function names based on some attributes 52; p. 3, paragraph 0035]; and

the build environment gathering application program interface (API) dependency information for the first module [linker 34 understands where to obtain the DLL attributes information, in order to bind the program object correctly; p. 3, paragraph 0034]. Although Deedwaniya teaches the invention substantially, Deedwaniya does not specifically teach a first module can provide and use at least one API, by (a) receiving a

list of dependent modules for a given process or DLL of the first module; and (b) storing, in the metadata of the first module, dependency information for the dependent modules in the list, wherein the dependency information includes API names and versions that the process or DLL depends on.

However, Brodkorb teaches a build environment [Software Delivery Manager; p. 2, paragraph 0023] gathering application program interface (API) dependency information for the first module [a supplementary manifest 54, which contains additional context information, such as dependency information; p. 2, paragraph 0026], the first module can provide and use at least one API, by (a) receiving a list of dependent modules for a given process or DLL of the first module [recognizes dependencies between archives and provides support when shared applications are installed; p. 3, paragraph 0033]; and (b) storing, in the metadata of the first module, dependency information for the dependent modules in the list [List of dependencies 44 on other SDA; p. 3, paragraph 0056], wherein the dependency information includes API names [p. 3, paragraph 0059] and versions [Implementation--Version; p. 3, paragraph 0045] that the process or DLL depends on.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Deedwaniya to incorporate the features of Brodkorb. One of ordinary skill in the art would have been motivated to make the combination because this provides a software deployment tool that deploy software updates on a system in conjunction with a system's current configuration so that dependencies are managed [p. 2, paragraph 0017 of Brodkorb].

9. As to claim 38, Deedwaniya teaches a linker creates the list of dependent modules for the given process or DLL and places the list in the metadata of the first module [linker 34 understands where to obtain the DLL attributes information, in order to bind the program object correctly; p. 3, paragraph 0034].

10. As to claim 39, Deedwaniya as modified teaches the build environment collecting additional dependencies from one or more module specifications [p. 3, paragraph 0041 of Brodkorb] that are separate from the list of dependent modules and placing the additional dependencies into the metadata of the first module [p. 1, paragraph 0012 of Brodkorb]; wherein the additional dependencies documented in each module lists API names [p. 3, paragraph 0059 of Brodkorb] and versions [Implementation--Version; p. 3, paragraph 0045 of Brodkorb] that the process or DLL depends on.

11. As to claim 40, Deedwaniya as modified teaches creating metadata for each API; and inserting the API metadata into the software package [SDA 50 contains a standard JAR manifest 52 and a supplementary manifest 54, which contains additional context information, such as dependency information; p. 2, paragraph 0026 of Brodkorb], wherein metadata for an API includes, but is not limited to: the API's name [p. 3, paragraph 0059 of Brodkorb] and version [Implementation--Version; p. 3, paragraph 0045 of Brodkorb].

12. As to claim 41, Deedwaniya teaches calculating a binary signature for each module of the one or more modules and inserting the binary signature into the respective module's metadata [p. 5, paragraph 0065]; wherein each unique version of a module will have a unique binary signature ["version identifier" would facilitate "selection" of the appropriate version of the product; p. 4, paragraph 0063].

13. As to claim 42, Deedwaniya teaches packages are created based on at least one of a feature, characteristic, or purpose ["decorate" function names based on various attributes; p. 4, paragraph 0061].

14. As to claim 43, Deedwaniya as modified teaches creating metadata for the software package that includes any package information such as the package's: name, build date, and characteristics [p. 3, paragraphs 0040 – 0060 of Brodkorb]; and inserting the metadata of the software package into the software package [attributes describing the component of the software contained in an SDA are contained in the standard manifest of the SDA; p. 3, paragraph 0040 of Brodkorb].

15. As to claims 44 – 50, these are apparatus claims that correspond to method claims 37 – 43; see the rejection to claims 37 – 43 above, which also meet these apparatus claims.

16. As to claims 51 – 57, these program product claims that correspond to method claims 37 – 43; see the rejections to claims 37 – 43 above, which also meet these program product claims.

17. As to claim 32, this is a combination of method claims 37, 39 and 42; see the rejections to claims 37, 39 and 42 above, which also meets this method claim.

18. As to claims 33 – 36, these are similar to method claims 38, 40, 41 and 43; see the rejections to claims 38, 40, 41 and 43 above, which also meet these method claims.

19. As to claim 58, this is an apparatus claim that corresponds to method claims 37, 39 and 42; see the rejections to claims 37, 39 and 42 above, which also meets this apparatus claim.

20. As to claims 59 – 62, these are apparatus claims that correspond to method claims 38, 40, 41 and 43; see the rejections to claims 38, 40, 41 and 43 above, which also meet these apparatus claims.

CONTACT INFORMATION

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Li B. Zhen
Primary Examiner
Art Unit 2194

/Li B. Zhen/
Primary Examiner, Art Unit 2194